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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 10/29/2003

22 KP

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/787,413

Applicant(s)

AUWETER ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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### DETAILED ACTION

This office action follows a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), filed in this application after final rejection on September 25, 2003. Applicants have amended claims 12 and 17. Claim 18 was cancelled.

A declaration under 37 C.F.R. 1.132, filed on October 8, 2003, has been reviewed thoroughly and has been entered into the record.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. Claims 12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,049,322 to Devissaguet *et al.* to in view of U.S. Patent No. 5,010,150 to Hennig *et al.*

Devissaguet *et al.* discloses a method of precipitating dye containing polymer particles dissolved in water-miscible organic solvent by adding the solution to water as the non-solvent, resulting in the formation of pigment particles having size less than 500 nm (claim 1, Examples 4 and 5). The difference between the prior art method and that presently claimed is the method of mixing solutions of different phase. Devissaguet *et al.* teaches simple mixing of two solutions, but it does not teach use of static mixing.

Static mixing apparatus are well established in the art, and as illustrated in Hennig *et al.* the static mixer is well suited for effective mixing of flowing media. One having skill in the art would glean from Hennig *et al.* that the static mixer provides for effective combination and mixing of incompatible liquids. It would be obvious to the skilled artisan, having both references at hand, to arrive at the notion of using a static mixer to combine solutions in the invention described by Devissaguet *et al.* because such an apparatus is disclosed adequately in Huber *et al.* and because its application is general. Therefore, one having skill in the art would have expected use of such a device for mixing liquid media to work efficiently.

Devissaguet *et al.* indicates that copolymers of acrylic acid, acrylic acid polymers, and poly(ethylene-vinyl acetate). Thus, one having ordinary skill in the art would find it obvious to arrive at present claims 14-16 because the subject matter thereof is described in the prior art.

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4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Devissaguet *et al.* to in view of U.S. Patent No. 5,010,150 to Hennig *et al.* as applied to claims 12 and 14-16 above, and further in view of U.S. Patent No. 5,270,445 to Hou.

Although Devissaguet *et al.* is silent with respect to use of protective colloids, this practice is well established in the art. Hou prescribes the use of a steric stabilizer to ensure colloidal stability of the resulting particles (col. 8, line 15). Thus, one would have found it obvious to arrive at present claim 13 because this standard procedure is adequately described in the prior art. One would be especially motivated to use protective colloid when forming particles of particular dimension in order to ensure their formation. Since this practice is documented adequately in the prior art, the skilled artisan would have expected this modification of the teachings of Devissaguet *et al.* to work.

#### ***Allowable Subject Matter***

5. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The claim is allowable over the cited references because neither teaches nor suggests a process that results in the formation of particles having a distribution width of less than 40 %, as presently recited. As shown in Applicants declaration, the inventive process results not only in the formation of particles having a size of 5-500 nm but also particles having the aforementioned narrow particle size distribution.

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***Response to Arguments***


6. Applicant's arguments with respect to the rejection of claims under 35 U.S.C. 103(a) as being unpatentable over Devissaguet *et al.* in view of Hou have been considered, but they are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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October 27, 2003

  
PETER D. MULCAHY  
PRIMARY EXAMINER